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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,115	06/14/2001	Michael Lynn Hinds	15745-US	7919

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EXAMINER

PANG, ROGER L

ART UNIT PAPER NUMBER

3681

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/881,115

Applicant(s)

HINDS, MICHAEL LYNN

Examiner

Roger L Pang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11 and 12 is/are rejected.
- 7) ☒ Claim(s) 13-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following action is in response to the amendment filed for application 09/881, 115 on July 26, 2004.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regard to claim 3, the claim has been amended to depend upon no claims now. It is suggested that applicant amend the claim to depend upon claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4, 9, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehde in view of Moskowitz '818. With regard to claim 1, applicant has disclosed a gearbox containing gearing and having a low section having a bottom wall, a rotatable drive shaft extending through said bottom wall, and being coupled to said gearing, and a seal located for preventing oil from leaking along an interface including a surface section of the shaft where it enters said bottom all of the gearbox as prior art (Jepson claim), but lacks the teaching of a

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contaminant collector. Lehde teaches a wall 31 with a rotatable drive shaft 37, and a seal 35, wherein a contaminant collector 60 having magnetic characteristics is mounted closely adjacent a top surface of said seal. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the gearbox of applicant's prior art admission to employ a contaminant collector in view of Lehde in order to collect metal particles that may be contained in the lubricant in order to prevent wear on other parts (Col. 1). Lehde lacks the teaching of said collector mounted for rotation with an associated one of said shaft sections at a location closely adjacent to the seal. Moskowitz teaches a contaminant collector 41 mounted to for rotation on a shaft 10 adjacent to a seal 32. It would have been obvious to one of ordinary skill at the time of the invention to modify Lehde to mount the collector for rotation on said shaft (thereby interchanging the spiral groove portion 63 and magnet 60) in view of Moskowitz, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. With regard to claim 9, Applicant has disclosed a sugar cane base cutter assembly including a gearbox provided with an upper, horizontal section extending between and joining a pair of depending wells, each well having a bottom wall, and upper drive shaft section of a base cutter leg being rotatably mounted in each bottom wall and a seal being located on each shaft section at an associated bottom wall for preventing leakage of oil from said gearbox along the shaft section as prior art (Jepson claim), but lacks the teaching of a contaminant collector. Lehde teaches a wall 31 with a rotatable drive shaft 37, and a seal 35, wherein a contaminant collector 60 having magnetic characteristics is mounted closely adjacent a top surface of said seal. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the gearbox of applicant's prior art admission to employ a contaminant collector in view

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of Lehde in order to collect metal particles that may be contained in the lubricant in order to prevent wear on other parts (Col. 1). Lehde lacks the teaching of said collector mounted for rotation with an associated one of said shaft sections at a location closely adjacent to the seal. Moskowitz teaches a contaminant collector 41 mounted to for rotation on a shaft 10 adjacent to a seal 32. It would have been obvious to one of ordinary skill at the time of the invention to modify Lehde to mount the collector for rotation on said shaft (thereby interchanging the spiral groove portion 63 and magnet 60) in view of Moskowitz, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. With regard to claims 3 and 11, Moskowitz teaches the gearbox, wherein the collector is a ring that is secured to the shaft, however lacks the specific teaching of press fitting. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lehde in view of Moskowitz to employ a press fitted ring, since it is known in the art that securing a ring on a shaft may be accomplished by press fitting. With regard to claims 4 and 12, Moskowitz teaches the gearbox, wherein a magnet is integrally fixed to the ring (said whole ring being a magnet, therefor a portion of said magnet can be interpreted as integrally fixed to the rest of the ring).

Allowable Subject Matter

Claims 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5-8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

With regard to the Lehde reference, applicant argues that fixing the magnet onto the shaft would render the protective arrangement non-functional. However, the only requirement for Lehde to work would be for the spiral and magnet to have relative rotation. This being the case, if the spiral was placed along the wall where the magnet is, and the magnet was fixed to the shaft (either separately or in a similar position as to where the spiral was) in view of Moskowitz, the protective function would not be changed. Applicant discloses that the magnet is immediately above and closely adjacent to the seal. If the magnet was interchanged with the spiral groove, the magnet would still be above and "closely adjacent" to the seal. The spiral and the magnet would still rotate relative to each other, and the particles would still be attracted to and brush up against the magnet, being moved up and away from the seal. Applicant's arguments have been considered, but are not persuasive.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (703) 305-3597. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

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Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 305-3597) on _____ (Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L Pang whose telephone number is 703-305-0445. The examiner can normally be reached on 5:30am to 4:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roger L Pang
Patent Examiner
Art Unit 3681

September 13, 2004